

Amendments to the Claims

Claim 1 (currently amended). A method comprising:

reserving a Quality of Service (QoS) resource pool a predetermined portion of available bandwidth between a first reservation protocol proxy and a second reservation protocol proxy, first network device coupled in communication with a packet network and associated with a first user community, said first network device represented by said first reservation protocol proxy and a second network device coupled in communication with the packet network and associated with a second user community for real-time communication sessions among users of the first user community and the second user community, said second network device represented by said second reservation protocol proxy; and providing end-to-end application QoS between the first user community and the second user community by selectively admitting a plurality of real-time communication sessions between the first user community and the second user community based upon currently available resources associated with the QoS resource pool and multiplexing the plurality of real-time communication sessions over a common reservation protocol session between the first ~~network device and the second network device~~. reservation protocol proxy and the second reservation proxy.

Claim 2 (original). The method of claim 1, wherein said reserving a predetermined portion of available bandwidth between a first network device associated with a first user community and a second network device associated with a second user community includes pre-allocating the reservation protocol session over a path through the packet network between the first network device and the second network device.

Claim 3 (original). The method of claim 2, wherein the reservation protocol session comprises a Resource Reservation Protocol (RSVP) session.

Claim 4 (original). The method of claim 3, wherein at least one of the plurality of real-time communication sessions includes a H.323 session and a Real-time Transport Protocol (RTP) session.

Claim 5 (original). The method of claim 1, wherein the first user community and the second user community comprise subscribers to a long distance carrier.

Claim 6 (original). The method of claim 1, wherein the first user community and the second user community comprise employees of an enterprise at a first geographic location and a second geographic location, respectively.

Claim 7 (original). The method of claim 1, wherein the packet network comprises the Internet.

Claim 8 (original). The method of claim 1, wherein:

a first local network supporting the first user community comprises Internet Protocol (IP) telephony products of a first vendor which are in communication with a first IP private branch exchange (PBX) call management agent; and

a second local network supporting the second user community comprises IP telephony products of a second vendor which are in communication with a second IP PBX call management agent.

Claim 9 (original). The method of claim 1, wherein the plurality of real-time communication sessions comprise voice over IP (VoIP) calls carrying voice or voice-band data.

Claim 10 (currently amended) A method comprising:

establishing an aggregated reservation protocol session over a path between a first reservation protocol proxy and a second reservation protocol proxy, and a first device coupled to a public Internet Protocol (IP) network represented by said first reservation protocol proxy and a second device coupled to the public IP network represented by said second reservation protocol proxy; and

providing end-to-end Quality of Service (QoS) on behalf of users of a distributed voice over IP environment by (i) selectively admitting a plurality of VoIP calls between those of the users associated with a first user community that access the public IP network via the first device and those of the users associated with a second user community that access the public IP network via the second device based on resources associated with the aggregated reservation protocol session and a desired level of service and (ii) multiplexing the plurality of VoIP calls onto the aggregated reservation protocol session.

Claim 11 (original). A method comprising:

establishing a Resource Reservation Protocol (RSVP) session between a first network device and a second network device that are part of a geographically distributed enterprise voice over Internet Protocol (VoIP) network;

receiving, at the first network device from a first local terminal, a request to initiate a first VoIP call with a first remote terminal associated with the second network device;

allocating a portion of pre-allocated resources associated with the RSVP session to the first VoIP call between the first local terminal and the first remote terminal;

receiving, at the first network device from a second local terminal, a request to initiate a second VoIP call with a second remote terminal associated with the second network device;

allocating a portion of the pre-allocated resources associated with the RSVP session to the second VoIP call between the second local terminal and the second remote terminal; and

providing a desired level of Quality of Service (QoS) to both the first VoIP call and the second VoIP call by sharing the RSVP session between the first VoIP call and the second VoIP call by multiplexing packets containing voice or voice-band data associated with the first and second VoIP calls onto the RSVP session.

Claim 12 (original). The method of claim 11, further comprising:

transmitting packets from the first local terminal and first remote terminal by forming an encapsulated packet at the first network device that includes tag information to allow the second network device to determine the packets are intended for the first remote terminal; and

removing the tag information at the second network device prior to forwarding the packets to the first remote terminal.

Claim 13 (original). The method of claim 12, wherein the tag information includes the IP address of the first local terminal.

Claim 14 (original). The method of claim 12, wherein the tag information includes the IP address of the first remote terminal.

Claim 15 (original). The method of claim 12, wherein the tag information includes a packet type indicator that specifies how to further identify a subprocess within the first

remote terminal.

Claim 16 (original). The method of claim 11 wherein the first local terminal and the first remote terminal comprise IP phones.

Claim 17 (original). The method of claim 11 wherein the first local terminal and the first remote terminal comprise computer systems running an Internet telephony application.

Claim 18 (original). A media aggregation manager comprising:

a resource manager to establish a reservation protocol session with one or more other media aggregation managers prior to establishment of any application sessions that share resources associated with the reservation protocol and to subsequently allocate and deallocate the resources in response to application session establishment requests and application session termination requests, respectively;

an admission control manager coupled to the resource manager, the admission control manager to provide admission control for application flows based upon availability of the resources as indicated by the resource manager;

a media multiplexor coupled to the admission control manager, the media multiplexor to tag media packets received from local application/endpoints that are associated with admitted application flows and to transmit the tagged media packets over the reservation protocol session;

a media demultiplexor to forward media packets received from remote application/endpoints to the local application/endpoints based upon tags appended by a media multiplexor of the one or more other media aggregation managers; and

a signaling gateway to perform signaling/media translation, if necessary, among a first signaling protocol employed by a first Voice over Internet Protocol (VoIP) environment in which the media aggregation manager is to operate and one or more signaling protocols employed by VoIP environments in which the one or more other media aggregation managers operate.